



Duo-Therm presents:

5 WAYS

to make you more
comfortable





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The new 1938 Duo-Therm

IMPERIAL

Fuel Oil Circulating Heater



THE new Duo-Therm Imperial differs from any other heater ever built. It is different in styling and appearance. Lower, more compact with rounded corners, smooth flowing lines and an exclusive new Golden Fleck enamel finish, it is the most beautiful heater ever created . . . a heater so startling, so different, so modern that it marks a major milestone in the fuel oil heater industry.

The Imperial is different in the way it heats your home, too. It gives you heat where you want it most — at the living level. You get

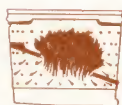
warmer floors, less wasted ceiling heat, more uniform circulation to all parts of your home. *And it fits any fireplace without special installation requirements.*

This new Duo-Therm burns cheap fuel oil — gives you clean, silent heat without ashes, dirt or work. It gives you *regulated heat* — as much or as little as you want — at the turn of a dial.

But the feature no other heater has, the feature chiefly responsible for a Duo-Therm's ability to give you *more* cheap, adjustable heat is the famous patented bias baffle Dual-Chamber burner.

ONLY DUO-THERM *has the* Patented Bias baffle Dual Chamber Burner

①



Pilot Light and perfect combustion! With the patented bias baffle Duo-Chamber burner you can turn the fire down to a "candle flame"—get just enough heat to take the chill off—and have it burn cleanly, silently, yet ready to respond the instant you want more heat!

②



Medium Fire and perfect combustion! The Dual-Chamber burner lets you regulate the heat supply to get the heat you want for any weather! At night, or on mild days, you don't burn lots of oil when a little will do!

③



Full Flame and still perfect combustion! The Dual-Chamber burner will flood your home with heat the coldest day in the year—will give you *more* heat from every gallon of oil—because it always burns cleanly, without soot, smoke or noise, from pilot light to full flame! Tests have proved it to be the most efficient pot-type burner made!

16 FEATURES

1 EXCLUSIVE BIAS BAFFLE CONSTRUCTION results in *clean fire* from pilot fire to top heat. Greatest clean fire range — just the heat that's wanted in any weather.

2 TAPERED BURNER SIDES and the bias baffle principle insure smooth, uniform heat acceleration without loss of efficiency at any stage.

3 LOW VELOCITY AIR INTRODUCTION to the burner results in a lazy, full-bodied flame which completely fills the heat chamber. The result—greater heat transfer—and more heat from every drop of oil.

4 EXCLUSIVE METHOD OF SECONDARY AIR INJECTION *above the burner* provides maximum efficiency at higher settings. Produces thrifty full-bodied flame completely filling heat chamber rather than pointed blasting flame that wastes heat up the chimney.

5 SPECIAL HEAT EXPANDER around the top of the burner insures maximum heat output. Expands the flame to completely fill the heat chamber.

6 OVERSIZE BURNER CONSTRUCTION makes a Duo-Therm the biggest, sturdiest heat producer in the business. 8", 10" and 13" are the pot-type burner sizes used for most other lines. In comparison Duo-Therm uses 12", 14" and 18" burner sizes.

7 CAPACITY to take care of extremely cold weather is one result of Duo-Therm oversize burner construction. The only burner on the market that matches this former coal stove advantage.

8 NO COSTLY REPLACEMENTS—Another advantage of Duo-Therm's oversize burner. Just as extra heavy grates used in the better coal stoves eliminated replacement cost, so does the Dual-Chamber burner insure maximum long life satisfaction.

9 PERFECT COMBUSTION—The Dual-Chamber burner's greater combustion area due to its larger size allows a more complete mixture of air and oil vapors for perfect combustion.

10 HEAVY STEEL CONSTRUCTION for long life. Built with 16-gauge and 18-gauge steel. Heavy, sturdy construction all the way through.

11 FASTER PICK-UP—Steel construction results in 20 per cent faster flame generation.

12 PRECISION BUILT—This company's many years' experience in working with steel has brought fool-proof precision methods to the manufacture of the Dual-Chamber burner.

13 ABSOLUTELY QUIET operation on any flame setting.

14 SIMPLE CONSTRUCTION with no moving or mechanical parts to wear out or get out of order.

15 LOW FLAME STABILIZER insures continuously efficient operation on pilot-size fire.

16 GREATEST EFFICIENCY of any pot-type burner on the market.

The Dual Chamber burner is the heart of every Duo-Therm fuel oil appliance!



■ **MODEL 900 — Duo-Therm Imperial** — New golden fleck enamel with smooth trim and antique brass door handle. 30" wide, 34" high, 27" deep with tank, 23" deep less tank. Available with or without five-gallon tank. Manual control standard, automatic control also available as extra. 39,375 BTU output. Suggested heating capacities, based on average construction—3,937 cubic feet for below zero outside temperatures; 4,922 cubic feet for zero to 20 degree outside; 6,562 cubic feet for above 20 degree outside. (See page 10 for method used in computing ratings.)

Duo-Therm **IMPERIAL** Models

■ **MODEL 950 — Duo-Therm Imperial** — New golden fleck enamel with smooth brown trim and antique brass door handle. 36" wide, 34" high, 27" deep with tank, 23" deep less tank. Available with or without five-gallon fuel tank. Manual control standard, automatic control available as extra. 52,500 BTU output. Suggested heating capacities, based on average construction — 5,250 cubic feet for below zero outside temperatures; 6,562 cubic feet for zero to 20 degree outside; 8,750 cubic feet for above 20 degree outside. (See page 10 for method used in computing ratings.)



LOWER!

Keeps heat down where you want it—gives warmer floors.

EXCLUSIVE

new Golden Fleck enamel finish.

ROUNDED

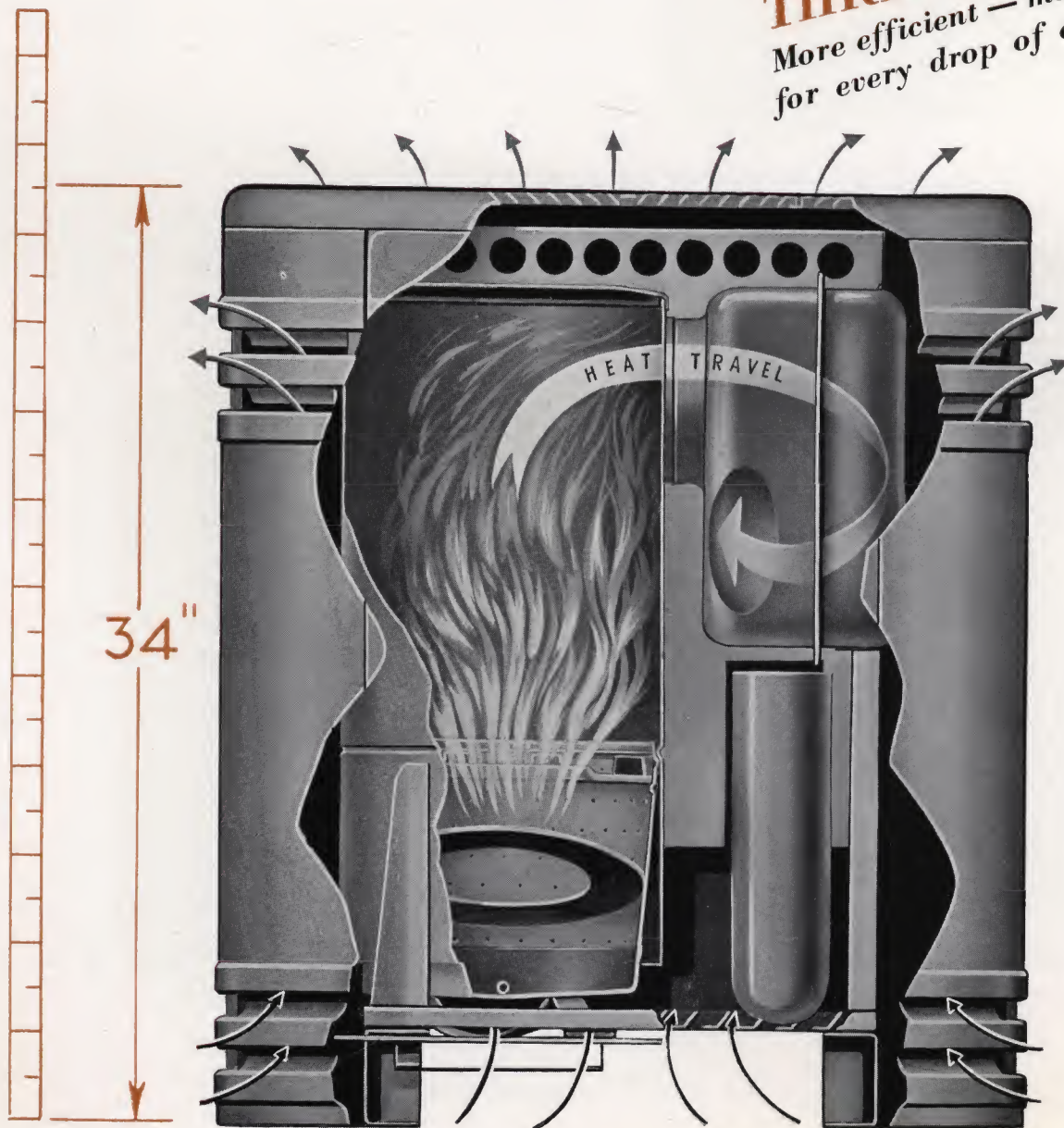
corners and smooth finish—easy to polish and keep clean.

EASILY

installed in any fireplace.

THRIFTY

More efficient — more heat for every drop of oil.



Only the

DUO-THERM IMPERIAL

Has all these Selling Features

- 1** REVOLUTIONARY NEW DESIGN—So startling, so beautiful, so different—it represents a major milestone in fuel oil heater history.
- 2** LOWER, MORE COMPACT—Fits easily into any room scheme.
- 3** BEAUTIFUL NEW FINISH—Exclusive gold-flecked enamel gives a rich glossy appearance. Easy to keep enduringly clean.
- 4** SMOOTH ROUNDED LINES—Give added grace and dusting convenience.
- 5** HANDSOME LARGE DOOR—with striking antique brass bar-type handle gives easy access to burner for lighting. Visible flame grille for extra cheeriness.
- 6** IDEAL FOR FIREPLACES—New low design fits any fireplace without special installation requirements.
- 7** MORE HEAT AT THE LIVING LEVEL—Lower construction, greater heat output area, special heat guides and greater efficiency result in heat where you want it. In other words—*warmer floors, more heat at the comfort zone, less heat at the ceiling.*
- 8** MORE EFFICIENT than other heaters. Comparative tests show the new Imperial to be more efficient than other popular makes.
- 9** EXCLUSIVE BIAS BAFFLE DUAL-CHAMBER BURNER—Greatest clean fire range. The secret of successful performance.
- 10** AUTOMATIC CONTROL—Special thermostatic control may be easily attached as extra equipment.
- 11** HANDY HEAT REGULATOR—Just the heat you want at the turn of a dial.
- 12** FULLY COORDINATED CONTROLS—Proper draft for maximum efficiency at all settings at the turn of a handy knob.
- 13** DIRECTIONAL HEAT GUIDES at top, front sides and bottom of the heater result in more uniform heat distribution. Reversible top grille gives added flexibility to direction of heat flow.
- 14** SPECIAL WASTE STOPPER prevents heat from rushing up the chimney, sends more heat into the room. Increases efficiency—saves oil.
- 15** LARGE CAPACITY HUMIDIFIER—for more healthful warmth.
- 16** SEAL-TIGHT INNER DOOR—No chance for any air leakage.
- 17** LARGE COLD AIR INTAKE AREA—No floor drafts due to air rushing into the heater.
- 18** SPLASH-PROOF STRAINERS—Make tank refills easier.
- 19** LATEST TYPE OIL CONTROL—Simple, dependable, accurate.
- 20** DOME HEAD HEAT CHAMBER—No place to catch dirt.
- 21** HEAVY, LONG-LIFE CONSTRUCTION—Built to last. Heavy gauge steel, rigidly braced throughout. Precision methods in every detail.
- 22** REASONABLE PRICES—The largest producer of fuel oil heaters, Duo-Therm's modern straight line production methods result in the highest quality at the lowest cost.
- 23** LISTED AS STANDARD BY THE UNDERWRITERS' LABORATORIES FOR USE WITH NO. 1 OR NO. 2 OIL.

DUO-THERM'S *New*

offers the greatest
fuel oil heater value
in the lower
price class



Check the new 1938 Duo-Therm Thrift Heater carefully, point by point, against any other heater of its type — and we believe its greater value will be plain.

Powered by the famous bias baffle Dual-Chamber burner, the Thrift heater gives *more* clean, silent, regulated heat from each gallon of oil. Smartly designed and beautifully finished in either the new Golden Fleck or ripple-grain enamel, it's a piece of furniture handsome enough to grace any living room. This new Duo-Therm Thrift heater has more money-saving, comfort-giving features — and costs you less.

1938 THRIFT LINE

1 ALL NEW FOR 1938—With Duo-Therm you get all brand-new 1938 models with new exclusive 1938 features.

2 BEAUTIFUL MODERN STYLING—Modern furniture design that lends new attractiveness to any surroundings.

3 HANDSOME VISIBLE FLAME DOOR GRILLE—Large round type door gives easy access to the burner for lighting. Finished in striking antique brass or smooth brown enamel. (A)

4 ATTRACTIVE NEW FINISHES—Choice of exclusive new golden fleck enamel with brown trim and antique brass door or popular Duo-Therm Ripple Grain enamel with door and trim in contrasting brown tone.

5 SMOOTH FLOWING LINES—No sharp corners, easy to keep clean. (B)

6 A MORE COMPLETE LINE—Nine circulating heaters to choose from.

7 MORE EFFICIENT than other heaters. Comparative tests show the Duo-Therm to be more efficient than other popular makes.

8 EXCLUSIVE BIAS BAFFLE DUAL-CHAMBER BURNER—Greatest clean fire range. The secret of successful performance. (C)

9 AUTOMATIC CONTROL—Special thermostatic control may be easily attached as extra equipment.

10 HANDY HEAT REGULATOR—Just the heat you want at the turn of a dial. (D)

11 FULLY COORDINATED CONTROLS—Proper draft for maximum efficiency at all settings at the turn of a handy knob. (E)

12 DIRECTIONAL HEAT GUIDES at top, front, sides and bottom of the heater result in more uniform heat distribution. (FFF)

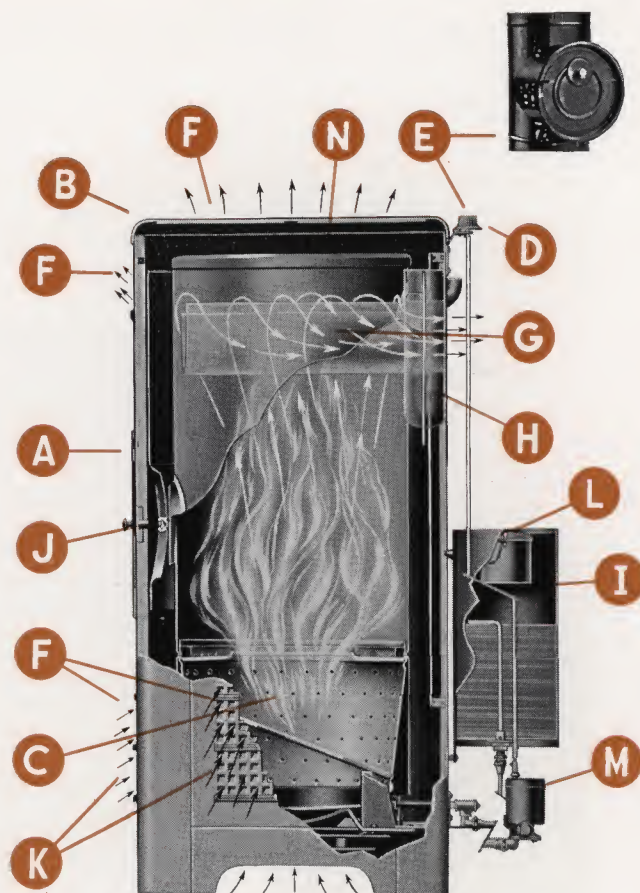
13 SPECIAL WASTE STOPPER prevents heat from rushing up the chimney, sends more heat into the room. Increases efficiency—saves oil. (G)

14 LARGE CAPACITY HUMIDIFIER—for more healthful warmth. (H)

15 EXTRA CAPACITY FUEL TANKS—Less frequent refills. All models have gravity tanks and constant level controls. (I)

16 SEAL-TIGHT INNER DOOR—No chance for any air leakage. (J)

17 LARGE COLD AIR INTAKE AREA—No floor drafts due to air rushing into the heater. (K)



18 SPLASH-PROOF STRAINERS—Make tank refills easier. (L)

19 LATEST TYPE OIL CONTROL—Simple, dependable, accurate. (M)

20 DOME HEAD HEAT CHAMBER—No place to catch dirt. (N)

21 HEAVY, LONG-LIFE CONSTRUCTION—Built to last. Heavy gauge steel, rigidly braced throughout. Precision methods in every detail.

22 LOW PRICES—The largest producer of fuel oil heaters, Duo-Therm's modern straight line production methods result in the highest quality at the lowest cost.

23 LISTED AS STANDARD BY THE UNDERWRITERS' LABORATORIES FOR USE WITH NO. 1 OR NO. 2 FUEL OIL.

DUO-THERM'S

Model

● **RATINGS:** As a simple and practical basis for rating circulating heaters the following rule-of-thumb method has been used: Below 0° outside temperatures — 10 BTU's of heater output per cubic foot; 0° to 20° outside temperatures — 8 BTU's per cubic foot; over 20° outside temperatures — 6 BTU's per cubic foot.

EQUIPMENT — All Duo-Therm Circulating Heaters are furnished as standard with the patented bias baffle Dual-Chamber burner, automatic draft regulator with the Coordinated Control feature, large capacity humidifier, oil control, directional heat guides, special waste stopper and special rigid burner and heat chamber assembly.



● **MODEL 606-8** — Attractive brown ripple grain enamel with contrasting dark brown trim. 39" high, 20" wide, 25" deep with tank, 21" deep less tank. Shipping weight with tank, approx. 140 lbs.; less tank, 129 lbs. 37,500 BTU output. Suggested heating capacities, based on average construction — 3,750 cubic feet for below zero outside temperatures; 4,687 cubic feet for zero to 20 degree outside temperatures; 6,250 cubic feet for over 20 degree outside temperatures.



● **MODEL 706-8** — Handsome brown ripple grain enamel with contrasting dark brown trim. 44" high, 24" wide, 27" deep with tank, 23" deep less tank. Shipping weight with tank, approx. 176 lbs.; less tank, 163 lbs. 50,000 BTU output. Suggested heating capacities, based on average construction — 5,000 cubic feet for below zero outside temperatures; 6,250 cubic feet for zero to 20 degree outside temperatures; 8,333 cubic feet for over 20 degree outside temperatures.



● **MODEL 806-8** — Soft brown ripple grain enamel with contrasting dark brown trim. 52" high, 28" wide, 33" deep with tank, 29" deep less tank. Shipping weight with tank, approx. 246 lbs.; less tank, 233 lbs. 75,000 BTU output. Suggested heating capacities, based on average construction — 7,500 cubic feet for below zero outside temperatures; 9,375 cubic feet for zero to 20 degree outside temperatures; 12,500 cubic feet for over 20 degree outside temperatures.



● **MODEL 661-8** — Duo-Therm Thrift heater specifically designed to bring the convenience of modern oil heat to tourist cabins, fishing shacks, household garages and other similar requirements. 12" wide, 18" deep, 32" high. 18,000 BTU output. Shipping weight — 77 lbs. Comes complete with Dual-Chamber burner and self-contained oil tank. Suggested heating capacities, based on average construction — 1,800 cubic feet for below zero outside; 2,250 cubic feet for zero to 20 degree outside; 3,000 cubic feet for above 20 degree outside.

Models for every requirement



● **MODEL 807-8** — Modern, gold-flecked brown enamel with rich brown trim and striking Tudor antique brass door. 52" high, 28" wide, 33" deep with tank, 29" deep less tank. Shipping weight with tank, approx. 242 lbs.; less tank, 229 lbs. 75,000 BTU output. Suggested heating capacities, based on average construction — 7,500 cubic feet for below zero outside temperatures; 9,375 cubic feet for zero to 20 degree outside temperatures; 12,500 cubic feet for over 20 degree outside temperatures.



● **MODEL 707-8** — Smart modern gold-flecked brown enamel with rich brown trim and striking Tudor antique brass door. 44" high, 24" wide, 27" deep with tank, 23" deep less tank. Shipping weight with tank, approx. 176 lbs.; less tank, 163 lbs. 50,000 BTU output. Suggested heating capacities, based on average construction — 5,000 cubic feet for below zero outside temperatures; 6,250 cubic feet for zero to 20 degree outside temperatures; 8,333 cubic feet for over 20 degree outside temperatures.



● **MODEL 607-8** — Beautiful gold-flecked brown enamel with contrasting dark brown trim and Tudor antique brass door. 39" high, 20" wide, 25" deep with tank, 21" deep less tank. Shipping weight with tank, approx. 140 lbs.; less tank 129 lbs. 37,500 BTU output. Suggested heating capacities, based on average construction — 3,750 cubic feet for below zero outside temperatures; 4,687 cubic feet for zero to 20 degree outside temperatures; 6,250 cubic feet for over 20 degree outside temperatures.



● **MODEL 660-8** — Duo-Therm Trailer heater. Gives a new kind of trailer heat — heat that's clean, quiet, odorless, convenient, trouble-free. Self-leveling oil control — perfect performance whether you're parked or purring along the highway. 12" wide, 18" deep, 30" high. 18,000 BTU output. Shipping weight — 77 lbs. Suggested heating capacities, based on average construction — 1,800 cubic feet for below zero outside; 2,250 cubic feet for zero to 20 degree outside; 3,000 cubic feet for above 20 degree outside.

● **TANKS AND CONTROLS** — Models 606-8 and 607-8 are furnished with a five-gallon fuel tank as standard equipment. All other Thrift models have a standard nine-gallon fuel tank. Models 606-8, 706-8 and 806-8 are furnished as standard with manually operated constant level oil control and are not available from the factory with thermostatic control. (May be installed as extra equipment in the field.) Models 607-8, 707-8 and 807-8 may be ordered from the factory with either manual or thermostatic control. All models are also available without tanks.

DUO-THERM



DUO-THERM'S new 1938 radiant heaters present an entirely new conception of smart styling and modern beauty in this type of unit. Available in black or two-tone porcelain enamel, they are undoubtedly the best-looking radiant heaters on the market today.

And you get the same clean, efficient performance, the same operating simplicity and sturdy-built quality that characterizes all Duo-Therm heaters. You get more for your money with a

Duo-Therm Radiant — with such important features as oversize patented bias baffle Dual-Chamber burners; special Waste Stopper that cuts chimney loss and sends more heat into the room; Regulated Heat with just the right amount to fit the weather at the turn of a dial; special floor board as an integral part of the heater and many others of equal importance. All models listed as Standard by the Underwriters' Laboratories for use with No. 1 or No. 2 oil.

Radiant Heaters



● **MODEL 406**—Finished in black satin. Complete with Dual-Chamber burner, controls, draft regulator and 3-gallon barometric fuel tank. Also available without tank and with constant level valve for use with separate tank. 37½" high, 12" diameter of heat drum. Shipping weight estimated, with tank, 87 lbs.; less tank, 69 lbs. 37,500 BTU output. Suggested heating capacities, based on average construction — 3,125 cubic feet for below zero outside temperatures; 3,750 cubic feet zero to 20 degree outside temperatures; 4,687 cubic feet for over 20 degree outside temperatures.



● **MODEL 407** — Finished in two-tone brown porcelain enamel. Complete with Dual-Chamber burner, controls, draft regulator and 3-gallon barometric fuel tank. Also available without tank and with constant level valve for use with separate tank. 37½" high, 12" diameter of heat drum. Shipping weight estimated, with tank, 93 lbs.; less tank, 75 lbs. 37,500 BTU output. Suggested heating capacities, based on average construction — 3,125 cubic feet for below zero outside temperatures; 3,750 cubic feet zero to 20 degree outside temperatures; 4,687 cubic feet for over 20 degree outside temperatures.



As a simple and practical basis for rating the radiant heaters the following rule-of-thumb method has been used: Below zero outside temperatures 12 BTU's of heat output per cubic foot; zero to 20 degree outside temperatures — 10 BTU's per cubic foot; over 20 degree outside temperatures — 8 BTU's per cubic foot.

● **MODEL 506** — Finished in black satin. Complete with Dual-Chamber burner, controls, draft regulator and 5-gallon fuel tank. 43" high, 15" diameter of heat drum. Shipping weight estimated, with tank, 125 lbs.; less tank, 105 lbs. 50,000 BTU output. Suggested heating capacities, based on average construction — 4,166 cubic feet for below zero outside temperatures; 5,000 cubic feet for zero to 20 degree outside temperatures; 6,250 cubic feet for over 20 degree outside temperatures.



● **MODEL 507** — Finished in two-tone brown porcelain enamel. Complete with Dual-Chamber burner, controls, draft regulator and 5-gallon fuel tank. 43" high, 15" diameter of heat drum. Shipping weight — estimated — with tank, 129 lbs.; less tank, 109 lbs. 50,000 BTU output. Suggested heating capacities, based on average construction — 4,166 cubic feet for below zero outside temperatures; 5,000 cubic feet for zero to 20 degree outside temperatures; 6,250 cubic feet for over 20 degree outside temperatures.

Duo-Therm FUE



L OIL FURNACES



THE Duo-Therm oil furnace is a completely automatic, oil-fired central heating plant. For the first time, it brings clean, silent, economical oil heat within reach of the smaller home of today.

Gives you modern air-conditioned heating comfort in winter — and in summer you get an invigorating circulation of cool, filtered basement air with the large, powerful blower. And it adds another room to your home the whole year round — by giving you a basement in which your heating plant consists of a single handsome tailored cabinet.

There are plenty of reasons why you'll want a Duo-Therm — and one of the most important, one feature that puts a Duo-Therm in a class by itself is its *straight line temperature control*. You don't get stop-and-start performance — a Duo-Therm operates on the high to low principle to bring you just right warmth all the time. No cold floors, no "cold 70." Only the efficiency and amazing clean fire range of Duo-Therm's patented bias baffle Dual-Chamber burner makes this big performance advantage possible.



Everything is included, everything is enclosed in the handsome tailored cabinets of these two DeLuxe models . . . powerful blower and triple filters for conditioned circulated heat . . . double casing for minimum heat loss . . . special waste stopper that ups efficiency . . . three-way stack outlets that lick every installation problem . . . built-in automatic draft regulator . . . automatic humidifier . . . complete insulation against noise . . . patented bias baffle Dual-Chamber Burner — all controlled by the special sensitive room thermostat to give you straight line temperature control that's true as the compass.

Model 322

Model 318



Specifications	Model 318 DeLuxe	Model 322 DeLuxe
Overall floor space . . .	34" x 58"	42" x 74"
Height to top of furnace	52"	52"
Height—Center of flue to floor	39 $\frac{3}{8}$ "	40"
Flue size	6"	8"
Oil flow, maximum in gallons per hour . . .	$\frac{3}{4}$	1
Maximum BTU out- put, gross	84,000	112,000
Maximum blower out- put in C.F.M.	800-1200	1300-1800
Shipping weight com- plete	581 lbs.	795 lbs.



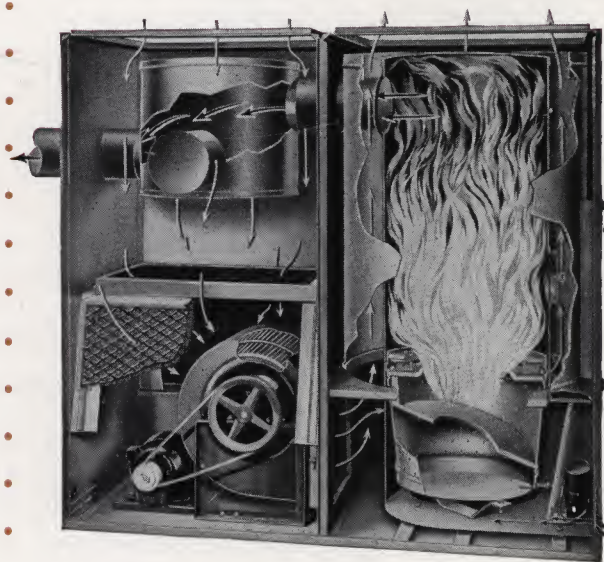
CHECK THESE *Features!*

1. **STRAIGHT LINE TEMPERATURE CONTROL** — Steady, uniform heat all the time. No cold floors or "cold 70."
2. **EXCLUSIVE PATENTED BIAS BAFFLE DUAL-CHAMBER BURNER** — No moving parts, quiet, flexible, efficient. Duo-Therm the only furnace that can be run on variable high-to-low fire without loss of efficiency.
3. **SIMPLE, LOW COST INSTALLATION**—Light weight, easy to handle. Compact and made to fit shallow basements. Three-way stack outlets.
4. **SPECIAL WASTE STOPPER** — Located in cold air return, reduces stack temperatures, pre-heats air, increases efficiency.
5. **DOUBLE CASING** — Reduces basement heat loss. Round inner casing for balanced heat distribution.
6. **EXTRA LARGE FILTER CAPACITY** — Triple filters on larger models.
7. **POWERFUL BLOWERS** — Circulate warm air in winter, cool basement air in summer.
8. **SUPER-SENSITIVE THERMOSTAT** — Special bi-actuated thermostat signals slightest temperature change to burner so that fire is always perfectly controlled to meet exact heat requirements.
9. **LISTED AS STANDARD BY THE UNDERWRITERS' LABORATORIES FOR NO. 1 OR NO. 2 OIL.**

Specifications

MODEL 314 Duo-Therm furnace (above) and Model 317 (not illustrated but same as Model 318 without rear compartment) offer you a choice of manual or completely automatic controls. A package unit with blower, motor and filters is also available for use with these two models.

Specifications	Model 314	Model 317
Overall floor space.....	23¼" x 27¼"	30" x 36"
Casing only	23¼" x 23¼"	28" x 28"
Height to top of furnace.	46¼"	52"
Height—Center of flue to floor	39"	45"
Flue size	6"	6"
Oil flow at factory settings in gallons per hour....	½	¾
Max. BTU output, gross..	51,500	75,000
Shipping weight	228 lbs.	343 lbs.
with blower	323 lbs.	493 lbs.
Max. Blower output in C.F.M.	400-800	800-1200



Above, Cut-away view of Model 318 Duo-Therm DeLuxe furnace showing interior arrangement and direction of air and heat travel.

DUO-THERM

Fuel



Plenty of hot water!

No cold-water shaving or lukewarm tubs when you have a Duo-Therm! The extra large capacities and extra fast recovery rates give plentiful, all-year-round, turn-of-the-tap hot water for the entire family!



No gas or electricity!

Gives anyone, anywhere, a completely automatic hot water supply — without gas or electricity — and without fussing with wood, coal, ashes or fire-building!

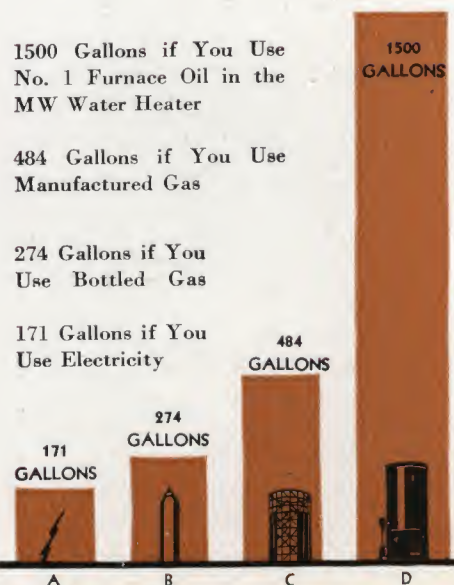


Cuts hot water cost in half!

All the convenience of gas or electricity — at less than half their cost! The chart tells the story:

How Much Hot Water for a Dollar?

The chart tells the story. For purposes of fair comparison, electricity (A) is estimated to cost 3c per KWH; bottled gas (B) at \$2.75 per thousand cubic feet; manufactured gas (C) at \$1.25 per thousand cubic feet and No. 1 fuel oil as used in the Duo-Therm automatic oil burning water heater (D) at 8c per gallon. While these comparisons and rates will vary in different localities, they constitute conservative averages. Based on relative volumes of water heated through an 80-degree rise.



WATER HEATERS



MODEL 21

Meets the hot water requirements of the average household of from four to five persons. Storage capacity — 23 gallons. Heating capacity — 21 gallons per hour, 80 degree rise. Overall height — 57½". Overall floor space — 17" by 22". Water connections—hot, ¾"; cold, ¾". Maximum auxiliary water storage capacity, with insulated tank — 60 gallons. Approx. shipping weight — 276 lbs. Model 21-B — Same as above, but with Everdur copper boiler. Shipping weight — 256 lbs.

MODEL 41



Similar in performance, appearance and construction to Model 21, but larger in capacity. Storage capacity — 45 gallons. Heating capacity — 42 gallons per hour, 80 degree rise. Overall height — 58". Overall floor space — 22" x 27". Water connections — hot, 1¼"; cold, 1¼". Maximum auxiliary water storage with insulated tank — 160 gallons. Approx. shipping weight — 417 lbs. Model 41-B — Same as above but with Everdur copper boiler. Shipping weight — 382 lbs.



Features

- 1** Large Central Boiler Flue — A direct passage for quick, uniform heat transmission to water in all parts of the boiler. The result — faster, more efficient service, less waste.
- 2** Hot water Outlet — All models may be hooked up to extra storage to increase total hot water capacity.
- 3** Mineral Wool in combination with dead air space between boiler and outer casing effectively insulates entire unit, reducing heat loss through radiation to absolute minimum.
- 4** Trim, attractive outer casing finished in distinctive Persian Orange lacquer.
- 5** A Mark of Quality. In addition to the Duo-Therm name plate, all Duo-Therm Heaters bear the Underwriters' Label and are listed as standard by this recognized authority, for use with No. 1 or No. 2 oil.
- 6** No coils to clog — Flame is virtually put into the water.
- 7** Efficient, low draft Dual-Chamber type oil burner. Simple, dependable — no moving parts to wear or require adjustment.
- 8** Quality Construction Straight Through — High temperature, hot-dipped galvanized heavy copper bearing steel boiler shell and heads.
- 9** Large Capacity Water Storage Compartments — Extra capacities coupled with faster recovery rates insure ample supply even during peak periods of demand.
- 10** Convenient Water Temperature Adjustment. User may quickly set heater for "warm, medium or hot."
- 11** Exclusive Duo-Therm Mechanical Snap-Action control. 100% efficient, positive action. Gas and electricity completely eliminated.
- 12** Exclusive, improved-type constant level oil control.
- 13** Special Trapped Oil Feed Line.
- 14** Handy Oil Line Clean-out Rod.



Duo-Therm Fuel Oil

COOKING RANGES

COOKING with a new, 1938 Duo-Therm gives you food that tastes better and costs less.

Food tastes better because the full French type cook top gives you even, uniform heat distribution over the entire cooking area for proper top cooking and the unvented oven doesn't let natural juices and flavors escape. It costs less because there's less food shrinkage — and because the cheap fuel oil does the job for less than half the cost of gas or electricity.

A Duo-Therm oil range gives you all the convenience of gas or electricity. Fire-building is done with a scratch of a match. There are no ashes — no wood, coal, soot or dirt. The Dual-Chamber burner's tremendous flexibility lets you turn a dial — get just the heat you want.

Finished in snowy-white porcelain enamel with jet-black trim and gleaming chrome, this handsome range has every feature any cook could ask.

A MORE *complete* LINE

MODEL 140 — Duo-Therm oil burning range complete with patented Dual-Chamber burner, controls, three-gallon fuel tank*, automatic draft regulator and right-hand storage compartment. White porcelain enamel finish with black trim and chrome hardware. Low back splasher. (Illustrated on preceding page.)

MODEL 141 — Same as Model 140 but with copper-lined hot water reservoir in place of right-hand compartment.**

MODEL 142 — Same as Model 140 but with addition of modern style buffet shelf.

MODEL 143 — Same as Model 142 but with addition of copper-lined hot water reservoir in place of right-hand storage compartment.**

MODEL 160 — Same as Model 140 but without right-hand storage compartment (see illustration below).

MODEL 161 — Same as Model 160 but with addition of modern buffet shelf.

* All models available without tank and with constant level control for use with separate tank.

**A special steamer attachment is available as extra equipment for use with reservoir models. Complete assembly includes two white 4-quart porcelain vessels with covers fitted into a special top for right-hand compartment of range.

Hot water coils available as extra equipment for all models.



Specifications

ALL MODELS

Cooking Top	29" x 18½"
Oven	18" x 18¾" x 12"
Height to Cooking Top	33"
Overall Width, Models 140, 141, 142, 143	41"
Overall Width, Models 160, 161	32½"
Overall Depth	31¼"
Height to Top of High Shelf	45"
Width of High Shelf	8½"
Pipe Size	6"
Reservoir Tank Capacity	29 qts.
Fuel Tank Capacity	3 gals.
Oil Consumption (maximum)	¾ gal. per hr.

All models burn either No. 1 or No. 2 fuel oil or kerosene

SHIPPING WEIGHTS

Model 140	440 lbs.	less tank	426 lbs.
Model 141	445 lbs.	less tank	431 lbs.
Model 142	463 lbs.	less tank	415 lbs.
Model 143	468 lbs.	less tank	435 lbs.
Model 160	390 lbs.	less tank	367 lbs.
Model 161	415 lbs.	less tank	400 lbs.



When added fuel flexibility is desired, the Duo-Therm range may be equipped with auxiliary gas or electric burners as shown in Figures 1 and 2 at right. Both gas and electric attachments are of the latest, most approved type. Figure 3 shows the range with the large copper-lined hot water reservoir in place. The circulating heater principle is shown in Figure 4. By opening the lift top over the storage compartment and closing the door to this compartment, extra kitchen warmth is circulated in colder weather.



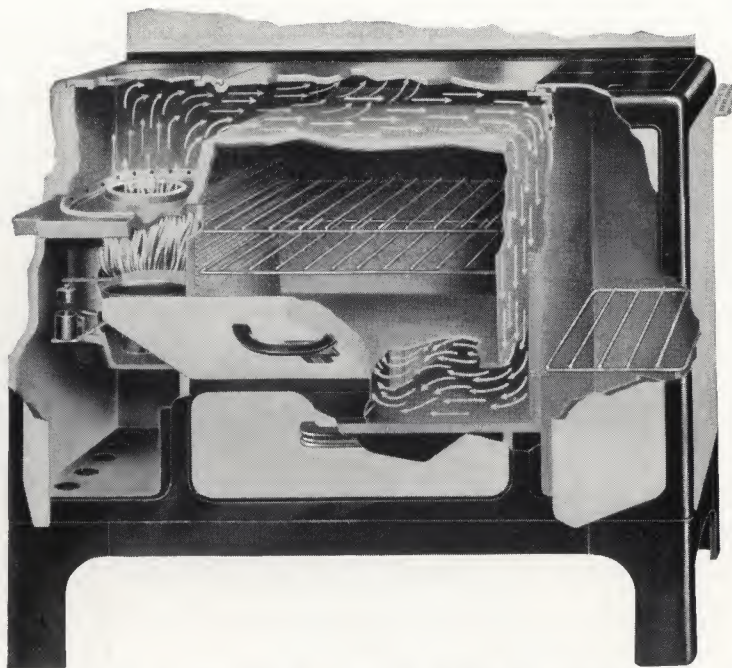
Fig. 1

Fig. 2

Fig. 3

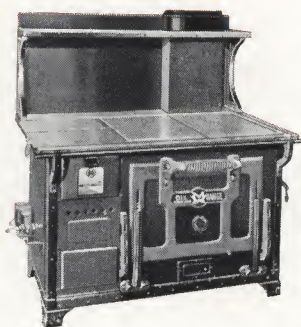
Fig. 4

- 1 BEAUTIFUL MODERN APPEARANCE** — Cool white porcelain enamel with black trim and smart chrome hardware.
- 2 SMOOTH, BOLTLESS EXTERIOR** — No obstructions. Easy to keep enduringly clean.
- 3 POLISHED, STREAMLINE FRENCH TYPE COOK TOPS** — Almost twice as much usable cooking area.
- 4 SPACIOUS OVENS** — Fully lined with rust-resisting heavy porcelain fused into the heavy steel walls. (Except on the 160 series.) The bright daylight interior can be wiped clean with a cloth.
- 5 NON-TIP SLIDE-OUT OVEN RACKS** — Rack elevations easily varied.
- 6 FULLY-LINED OVEN DOOR** — Spring balanced, rigidly braced.
- 7 HANDY TEMPERATURE AND DAMPER REGULATIONS** — Positive temperatures and uniform heat distribution at all times.
- 8 ACCURATE, MODERN-DESIGNED OVEN THERMOMETER** — Shows temperatures at a glance.
- 9 COMBINATION WARMING OVEN AND UTENSIL DRAWER** — Located directly beneath baking oven.
- 10 NEW TYPE BUFFET SHELF** — The Duo-Therm range may be ordered with low back or with modern-designed high back and buffet shelf. Shelf does not extend over cook top to trap heat.
- 11 NO GAS, NO ELECTRICITY** — Installed with equal success in city or country. Burns inexpensive fuel oil, greatly reducing cost of operation.
- 12 CLEAN, FAST, THRIFTY** — Famed Dual-Chamber burner standards of clean, fast, economical performance.
- 13 HEAVY GAUGE INSULATED STEEL BODY** — Quality construction and precision methods throughout.
- 14 LESS FOOD SHRINKAGE** — The modern, indirect-flame unvented oven seals in all of the flavorful moisture and food juices.
- 15 LARGE STORAGE COMPARTMENT** — Also provides extra heat when opened up in cold weather.
- 16 HOT WATER RESERVOIRS** — Models available with a large capacity copper hot water reservoir tank.
- 17 AUXILIARY GAS OR ELECTRIC BURNERS** — Easily installed where this added fuel flexibility is desired.
- 18 ALL MODELS LISTED AS STANDARD BY THE UNDERWRITERS' LABORATORIES FOR USE WITH NO. 1 OR NO. 2 OIL.**



WHY DUO-THERM MEANS FASTER, BETTER COOKING — Showing how heat from Duo-Therm's famous Dual-Chamber burner travels across the full French type cook top and around the spacious unvented oven — giving quick, uniform heat distribution.

DUO-THERM *Commercial Units*



● Built in sizes to meet every requirement from the corner lunch to the largest hotel, these Duo-Therm ranges and ovens have made an amazing record.

In actual use they have cut fuel costs 50%. They have cut food shrinkage from 10 to 20%. They have consistently given better, more uniform, more satisfactory cooking and baking in every way!

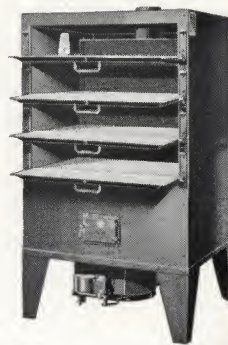
The full French type cook tops — spacious ovens — thorough insulation — positively controlled temperatures and accurate thermometers are some of the features that explain their finer performance.

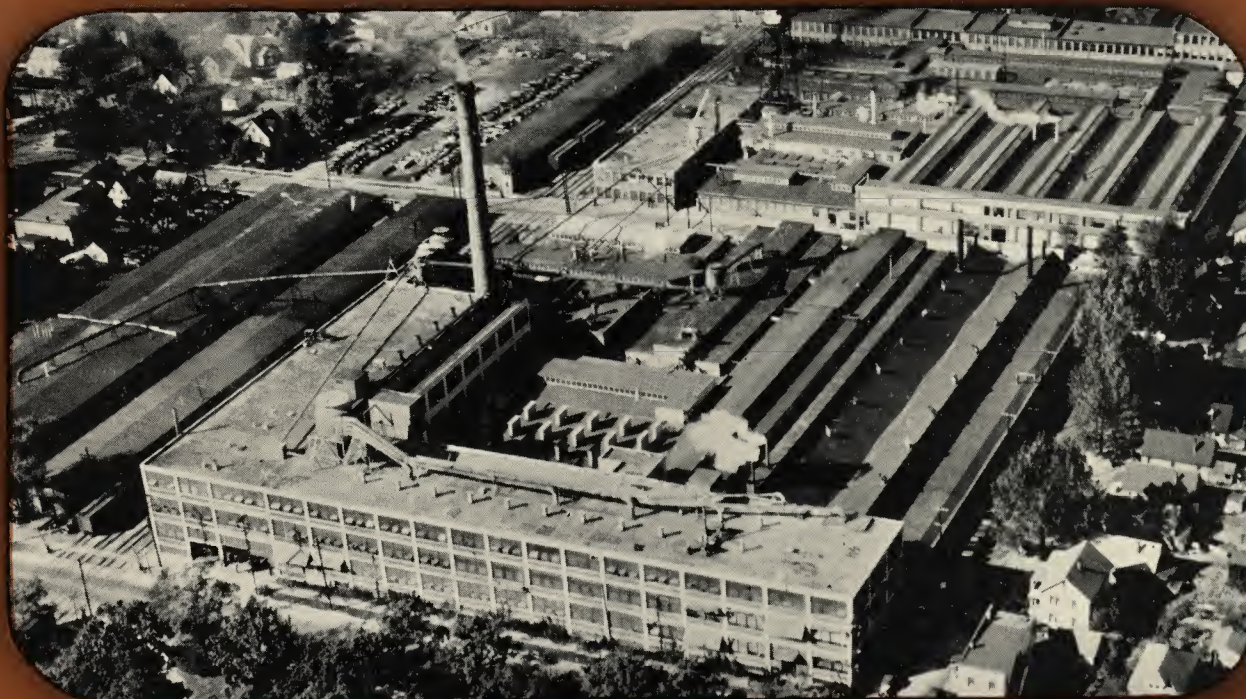
● **MODEL 251 (above).** Heavy duty range for large restaurants, hotels, etc. Oven — 28" x 26" x 16"; cook top — 54" x 38"; Height to cook top — 33 1/4", to high shelf — 53"; extreme width — 60"; approx. shipping weight — 1,300 lbs.

MODEL 151 (not illustrated) — Oven — 22" x 22" x 16"; cook top — 44" x 38"; Height to cook top — 33 1/4", to shelf — 53"; Overall width — 50"; approx. shipping weight — 800 lbs.

MODEL 449 (right) Bake Oven — 66 1/2" high, 42" wide, 40 1/4" deep. Shelves — 26 1/2" x 37" x 6 1/2". Capacity — 72 1 1/2 lb. loaves, 32 10" pies. Approx. shipping weight — 1,150 lbs.

MODEL 448 (not illustrated) — 66 1/2" high, 38" wide, 33 1/2" deep. Shelves — 20" x 33 5/8" x 6 1/2". Capacity — 48 loaves, 24 10" pies. Approx. shipping weight — 875 lbs.





How an industry started in an orchard ...

Twenty years ago, orchard growers in the West had learned to protect their crops from killing frosts by using "smudge pots."

These smudge pots, or orchard heaters, were simply smoke pipes, punched full of holes, and set in bowls used for burning oil. Even cruder than the oil they burned, these heaters nevertheless gave off quite a little heat and well served the purpose for which they were intended.

From these orchard heaters came the idea which prompted the research and experimentation that resulted in the development of the single chamber pot-type fuel oil burning space heater burner. This was a radical departure from all previously known apparatus for the burning of fuel oil. This single chamber type burner was used in nearly all of the early fuel oil heaters and is still used today by numerous manufacturers. A very limited clean fire range with far too little flexibility and efficiency except on the high fire setting, however, has resulted in the single chamber burner falling considerably short of satisfactory performance for present-day requirements.

Recognizing these limitations, Duo-Therm engineers invented and patented the now famous Dual-Chamber burner — a revolutionary new idea which

definitely eliminated all the former single chamber burner objections and set an entirely new standard of clean, flexible, thrifty heating satisfaction.

From the absolutely clean, quiet, efficient Dual-Chamber burner came a major household appliance industry — with annual sales in the millions of dollars — with a list of fuel oil appliances which every year gives hundreds of thousands of people cheaper, better, more convenient living.

Duo-Therm not only invented and patented the original Dual-Chamber burner but it made far-reaching improvements during succeeding years.

In addition, Duo-Therm introduced the precision methods and production economies of the famed "assembly line." Duo-Therm substituted steel, with its advantages, for cast iron. Duo-Therm led in the development of new enamel finishes, new heater designs. And as a division of Motor Wheel Corporation, one of America's great industrial institutions, Duo-Therm has maintained from the very start the only complete engineering and research laboratories in the industry.

It is this proven leadership and this extra capacity for leadership which today lets Duo-Therm give you a bigger dollar's worth than any other fuel oil equipment manufacturer.

Form No. C.L.C.
338-6-12 1/2 M 10-1-38
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IN
U.S.A.

DUO-THERM DIVISION
Motor Wheel Corporation
Lansing Michigan

CUTTING THE COST OF

Comfort



NEW FURNACE BRINGS AUTOMATIC OIL HEAT WITHIN REACH OF MILLIONS!



Automatic oil heat gets right down to brass tacks with the introduction of these amazing Duo-Therm Utility Furnaces. Thanks to Duo-Therm's modern engineering and production methods, prices have been driven down to the point where a completely automatic, thermostatically-controlled unit for the average three, four or five room home is well within the means of millions who have never before experienced this freedom from heating drudgery.

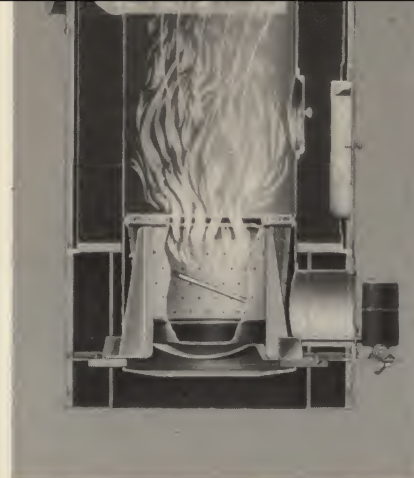
Real Operating Economy has been built into these new furnaces, too. Every model has Duo-Therm's famous bias baffle Dual Chamber Burner. Clean from pilot to highest fire, quiet, efficient—and without a single moving part—it's lazy floating flame gives more heat for every drop of oil you burn. And Duo-Therm's special Waste Stopper keeps heat from rushing up the chimney, sends more warmth into your home.

As for Comfort—Duo-Therm's high-low operating principle completely licks cold floors and "Cold 70" (stratification)—gives a constant flow of just-right warmth. This feature, plus Duo-Therm's Super-Sensitive Room Thermostat results in straight line temperature control that's true as the compass, with more uniform heat circulation in every part of your home.

Attractive, compact, these new Duo-Therms are the perfect answer to the modern bring-the-furnace-out-of-the-basement idea in home construction. And for both Utility room and basement installations, they simply and successfully fill a long-felt need for modern automatic oil heat, adaptable both from the standpoint of price and performance, to modern smaller home construction.



The new Duo-Therms are available in both manual and thermostatically-operated models. Where forced heat circulation is desired, a choice of either a complete blower-filter unit or special Duo-Therm package fan is offered. All models come with double casing, self-contained humidifiers, automatic draft regulators and many other special features. The tailored outer casings are finished in attractive red, high gloss flecked enamel. Model 850 is shown above.



Right above, Model 750 Duo-Therm Utility Furnace with package fan installed at base. Left, sectional view showing interior construction, all models. Note the large capacity burner, the waste stopper near top of the heat chamber, the handy humidifier on back of inspection door, the double casing and sturdy braced construction.

Check These Important Features

Exclusive Bias Baffle Dual Chamber Burner—Its greater efficiency means lower operating costs. Heavy long life construction.

Straight-Line Temperature Control—High-low operation, made possible by Duo-Therm's burner flexibility, plus super-sensitive room thermostat creates steadier warmth, more comfort. No cold floors or "Cold 70".

Simple, Low Cost Installation—Light weight, easy to handle. Compactly built to fit in small basement space or utility room.

Waste Stopper—Located near top of heat chamber prevents heat from rushing up the chimney, sends more warmth into the home.

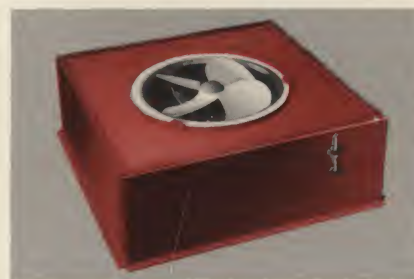
Double Casings—Attractive square type outer casing. Round inner casing reduces radiant heat loss, protects outside finish of furnace, creates more uniform heat distribution to all warm air leads.

Large Capacity Humidifier—For more healthful heating. Located on back of inspection door for easy accessibility.

Attractive Finish—High gloss, red flecked enamel. Easily wiped clean with a cloth.

Automatic Draft Regulator—Insures proper amount of draft for maximum burner efficiency at all times.

Safe—Listed as Standard by the Underwriters' Laboratories for use with either No. 1 or No. 2 fuel oil.



Rubber mountings insure quiet, vibrationless operation of the inexpensive package fan unit, left. Has same outside dimensions as the furnace itself, which sets directly on top of the fan housing. Cold air can be brought up underneath the fan, or through the sides of the casing, which are removable. Comes complete with combination fan and limit switch. At the right is the filter-blower unit also designed for use with these furnaces. Complete with casing and boot, Delco motor with automatic Thermotron (motor protector cut-out), variable speed pulley, blower, two filters, and combination fan and limit switch. (Note: the package fan should be used with gravity duct system only. Where higher resistance piping is used, the filter-blower unit is recommended).

DUO-THERM

Utility Furnace

DUO-THERM DIVISION --- MOTOR WHEEL CORPORATION

Lansing, Michigan

★ ★ ★ SPECIFICATIONS ★ ★ ★

UTILITY FURNACE

MODEL NUMBERS

	749 Man.	750 Auto.	849 Man.	850 Auto.
Height casing.....	43"	43"	49 1/2"	49 1/2"
Width casing.....	24"	24"	28"	28"
Depth casing including controls.....	29"	29"	33"	33"
Height center flue to floor (furnace).....	35 1/4"	35 1/4"	41 3/4"	41 3/4"
Height center flue to floor (with fan).....	43 1/4"	43 1/4"	49 3/4"	49 3/4"
Flue size.....	6"	6"	6"	6"
Waste Stopper.....	20 gauge vitreous enamel			
Outer casing.....	20 gauge C.R.S.	20 gauge C.R.S.	20 gauge C.R.S.	20 gauge C.R.S.
Heat chamber.....	20 gauge C.R.S.	20 gauge C.R.S.	20 gauge C.R.S.	20 gauge C.R.S.
Inner casing.....	26 gauge galvanized	26 gauge galvanized	26 gauge galvanized	26 gauge galvanized
Draft regulator.....	6" Tee Type	6" Tee Type	6" Tee Type	6" Tee Type
Chimney cross section sq. in.....	All models 28 round or 36 square			
Chimney height—min. above flue.....	15'	15'	15'	15'
Heat chamber diameter.....	14"	14"	18"	18"
Burner (dual chamber).....	14"	14"	18"	18"
Heat surface, sq. in.....	1562	1562	2316	2316
Grade oil recommended.....	No. 1 or No. 2	No. 1 or No. 2	No. 1 or No. 2	No. 1 or No. 2
Maximum oil consumption gal. per hr.....	7/16	7/16	11/16	11/16
Maximum B.T.U. output, gross.....	50,000	50,000	75,000	75,000
Warm air pipe area sq. in. (fan or gravity).....	281	281	437	437
Warm air pipe area sq. in. (blower).....	194	194	300	300
Shipping weight.....	188 lbs.	188 lbs.	254 lbs.	254 lbs.

20% to be deducted from gross rating to allow for pipe loss and pick up on basement installations or when warm air ducts are in attic. When installed at floor level in utility room deduct 10% from gross rating.

FILTER-BLOWER UNITS

	Model C9 For 750 Furnace	Model C10 For 850 Furnace
Height.....	23"	26"
Width.....	20 3/8"	25 3/8"
Length.....	25 3/8"	25 3/8"
Shipping weight.....	140 lbs.	150 lbs.
Output CFM.....	400-800	800-1200
Filters (2).....	16"x20"	16"x25"
Motor with variable speed pulley.....	1/6 H.P.	1/6 H.P.
Blower location.....	Back or sides of furnace	
Allow 7" between blower casing and furnace for fan boot.		

PACKAGE FAN UNITS

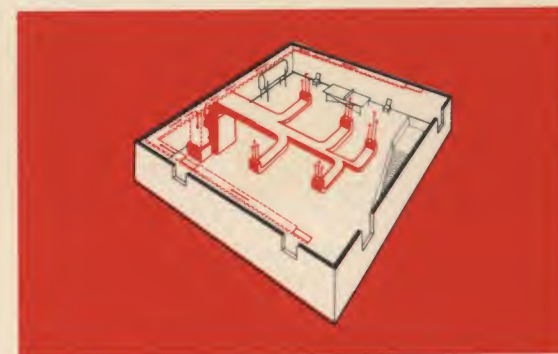
	Model F75 For 750 Furnace	Model F85 For 850 Furnace
Fan casing size.....	8"x24"x24"	8"x28"x28"
Fan wheel size.....	16"	16"
Fan motor.....	1/16 H.P.	1/16 H.P.
Shipping weight.....	55 lbs.	65 lbs.



Above is a typical small home installation with the furnace centrally located in a small closet-like room. Short, direct leads run from the sheet metal bonnet to wall grills in the various rooms to be heated. Cold air returns are preferably carried under the floor, or can be located in the walls themselves. Forced circulation is preferable, but not always essential.



In the above drawing, the furnace is located in a utility room off the kitchen. A main warm air trunk line is used, which can be either located in the partitions or carried up into the attic. (Note the package fan at the base of the furnace). Here again cold air returns may be in the walls or carried under the floor. The Utility room could also be in the form of a wing attached to the house.



Here the artist shows a bird's-eye view of a suggestive basement installation. Note how the furnace and fuel tank are placed in an out-of-the-way location to allow for a recreation room, laundry facilities, etc.

DUO-THERM DIVISION

MOTOR WHEEL CORPORATION

#142 - 159.50
Constant Pressure 2.25
Coil Installation 18.00
179.75

SPILLER ELECTRIC CO., INC.

KENNEBUNK, MAINE

DUO-THERM PRICE LIST EFFECTIVE MAY 15, 1938

DUO THERM COMMERCIAL RANGES

Model 151	\$310.00
Model 251	395.00
Model 108	139.50

DUO THERM DOMESTIC RANGES

Model 160	\$129.50
Model 161	139.50
Model 140	149.50
Model 142	159.50
Model 224	197.50
Model 244	215.00

DUO THERM WATER HEATERS

Model 21	\$104.50
Model 21B	154.50
Model 41	147.50
Model 41B	303.50

DUO THERM CIRCULATING HEATERS

Model 900	\$79.50
Model 950	89.50
Model 606-8	64.50 54.50
Model 607-8	74.50 67.50
Model 706-8	82.50 74.50
Model 707-8	89.50 82.50
Model 807-8	119.50
Model 806-8	109.50

DUO THERM THRIFT HEATERS

Model 66I-8	\$39.50
Model 660-8	\$37.50

DUO THERM BAKE OVENS

Model 448	\$315.00
Model 449	420.00

Attachments for Domestic Ranges

Two Burner Gas Plate	17.50
Two Burner Electric Plate	25.00
Steamer Attachment	7.50
Extra for Constant Level Valve in place of tank (net)	2.25
Extra for High Backs on Models 224 and 244	10.00

DUO THERM FURNACES

Model 314 (Manual)	\$129.50
Model 314 (Thermostatic)	159.50
Model 317 (Manual)	175.00
Model 317 (Thermostatic)	215.00
Model 318	355.00
Model 322	395.00
Model C8 Special Blower for Model 314	97.50
Model C-10 for Model 317	115.00

Models 607-8 Model 707-8, Model 807-8
may be ordered with thermostatic
control from the factory at an add-
itional list of \$10.00.
Models 900 and 950 may also be
purchased as above.

DUO THERM RADIANT HEATERS

Model 407	\$51.50
Model 507..	71.50

Note: Suggested prices for figuring commercial equipment installation:
110 gal. tank installed \$15.00; 275 gal. tank installed \$30.00; hot
water coil installed \$20.00; blower \$45.00
Discount to authorized dealers on domestic ranges and circulating
heaters 40%. Water heaters, Commercial ranges, Bake ovens 33 1/3%.
Terms: S.D.B.L. Kennebunk, Maine. F.O.B.